

Anomalous Cosmic Rays: Recent Results

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The anomalous cosmic ray (ACR) component is thought to originate as interstellar neutral atoms which drift- into the heliosphere, become ionized by the solar wind or by solar photons, and are accelerated to hundreds of MeV in the outer heliosphere, presumably at the solar wind termination shock. Today, instruments on the Pioneer, Voyager, Ulysses, IMP, and SAMPEX spacecraft. provide ACR observations out to 57 AU in radial extent. and up to 32 degrees in heliographic latitude. We will discuss recent observations of the composition and gradients of ACRs, relate the results to previous work, and discuss implications for the nature of the three dimensional heliosphere.

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